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Inhibitory Activity of *Artemisia spicigera* Essential Oil Against Fungal Species Isolated From Minced Meat

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Abstract

Background: Meat is an important source of several nutrients. The capability top of fresh meat to rot, causing the group of studies food science, biological and chemical stability meat consideration.

Objectives: This study was conducted to examine the inhibitory effect of *Artemisias spicigera* essential oil against fungal species isolated from minced meat.

Materials and Methods: Two types of media dichloran 18% glycerol (DG18) agar and dichloran rosebengal chloramphenicol (DRBC) agar were selected for the mycological analysis of the minced meat samples. To evaluate the antifungal activity of essential oils, the microdilution broth method based on the CLSI (M27A) guideline was used.

Results: *Artemisias spicigera* essential oil has an inhibitory effect on the growth of fungi found in samples of minced meat. *Aspergillus*, *Penicillium* and *Cladosporium* were the most common genera on both medium types. Average Minimum Inhibitory Concentration $_{50}$ = 1.88 µL/mL and MIC$_{90}$ = 2 µL/mL were reported. The genus of *Mucor* with MIC = 1.0 µL/mL was the most sensitive and *Aspergilus versicolor* was the most resistant species to the essential oil with MIC = 4 µL/mL.

Conclusions: The results of the present study show a favorable inhibitory effect of *Artemisias spicigera* essential oil on fungal growth, especially *Aspergillus* species. According to the results, antifungal components of *Artemisias spicigera* in different forms are used to prevent fungal pollution.

Keywords: Antifungal Agent, Food Contamination, Meat, *Artemisia*